Labeeb Hasan Zaker

An aspiring Mechatronics Engineering student who is interested in Software Development, Artificial Intelligence and Web-Development. I am passionate, goal-oriented Developer with strong commitment to collaboration and solutions-oriented-problem solving. I love to learn and play with technologies, trying to achieve new outcomes.

EDUCATION AND INVOLVEMENT

Mechatronics Engineering (GPA- 3.85)

MCMASTER UNIVERSITY SEPTEMBER 2018 - APRIL 2022

Relevant courses: Engineering Computation (Python, Grade: A+), Programming for Mechatronics (C language)

McMaster Eco-Car Club CAVS Programmer

SEPTEMBER 2019 - PRESENT

- Implemented a Matlab code to receive data from the car sensors (Sensor Fusion)
- Collaborated with teammates on developing the ACC (Adaptive Cruise Control) algorithm using Matlab

SKILLS

Front-end: HTML5, CSS3, jQuery
Back-end: Node.JS, MongoDB, Rest API
Languages: JavaScript, Python, C/C++, Matlab
Frameworks: Bootstrap4, Express.JS, Git, ReactJS

PERSONAL PROJECTS

BloggersInc | HTML5, Semantic UI, CSS3, JavaScript, JQuery, Node.JS, Express.JS

- Designed social media site which allows users to create blog posts, make comments and edit them.
- Used MongoDB to organize and store non-relational databases of ~30 users, blogs and comments
- Constructed a **secure** user login form using **Passport.JS** library

Vehicle Collision Avoidance Program | Python3

- Lead development of an adaptive **Python** program that could detect obstacles, road conditions, and lane markers using **OpenCV**, **NumPy**, **matplotlib** libraries
- Employed **NumPy** to account for **data processing** on arrays of integer coordinates, thus increasing **accuracy** of computer detection results on lanes
- Implemented CV2 library to visualize the detection results on various videos or images

Personal Portfolio | HTML5, Bootstrap4, CSS3, JavaScript, JQuery, Node.JS, Express.JS

- Created portfolio site where people can learn more about me, learn about my projects, and contact me.
- Improved **site-responsiveness**, by adding **Bootstrap4** built-in **responsive breakpoints**, which adjusts and aligns the content based on current window size
- Refined communication service by integrating node-mailer library to handle over a 100 monthly emails

Campinsiders | HTML5, Bootstrap4, CSS3, JavaScript, JQuery, Node.JS, Express.JS

- Designed a review site which allows users to create, add reviews, and comments to campgrounds
- Integrated Google Maps API to allow the users to view locations on the website
- Used MongoDB and JavaScript to create an interactive search bar to filter campgrounds based on input